



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,173	02/08/2002	Thomas Bayer	BAYER-3 (PCT)	7952
25889	7590	11/30/2004	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			PANG, ROGER L	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,173

Applicant(s)

BAYER, THOMAS

Examiner

Roger L Pang

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 8 and 9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

The following action is in response to the amendment filed for application 10/049,173 on October 4, 2004.

Drawings

The drawings were received on October 4, 2004. These drawings are approved.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings filed on October 4, 2004 are not formal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ridgely '967.

Ridgely teaches a three stage, speed-reducing planetary transmission having, in each stage, a driven sun wheel 11 rolling in an internal gear 15 and interacting with a planet wheel 16 mounted on a planet carrier 21, in which the sun wheels of the second and third stages are each driven by the planet carrier of the preceding stage, and fixed transmission housing 12, in which

at least the internal gear of the third stage is rigidly connected with the transmission housing (Fig. 1) and the internal gears of the first and second stages are each rigidly connected with the transmission housing (Fig. 1), and in which, furthermore, the planet carriers of the second and third stages are each provided with four planet wheels in a circumferential direction (Fig. 2), characterized by the features: the internal gears have a number of teeth in all three stages, and the transmissions have ratios. Ridgely does not specifically teach the number of teeth to be 108 or the ratios of the second stage and third stage being 4 and 5.5, respectively. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ridgely to employ specific number of teeth and specific ratios, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shirokoshi '968. Shirokoshi teaches a three stage, speed-reducing planetary transmission having, in each stage, a driven sun wheel 14,24,45 rolling in an internal gear 11,21,32 and interacting with a planet wheel 13,26, 41 mounted on a planet carrier 12,25,20, in which the sun wheels of the second and third stages are each driven by the planet carrier of the preceding stage, and fixed transmission housing 2, in which at least the internal gear of the third stage is rigidly connected with the transmission housing (Fig. 2) and the internal gears of the first and second stages are each rigidly connected with the planet carrier of the third stage (Fig. 2), and in which, furthermore, the planet carriers of the second and third stages are each provided with four planet wheels in a circumferential direction (Fig. 1), characterized by the features: the internal gears have a number of teeth in all three stages, and the transmissions have ratios. Shirokoshi does not specifically

teach the number of teeth to be 108 or the ratios of the second stage and third stage being 4 and 5.5, respectively. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shirokoshi to employ specific number of teeth and specific ratios, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Response to Arguments

With regard to the Ridgely and Shirokoshi references, applicant appears to only argue the fact that the ratios that are claimed differ from the cited references. Therefore, the present inventions, as claimed, only differ from the cited art because different gear ratios are claimed. To change the ratio used within such a planetary gear system only requires a change in size. Applicant argues that the claimed ratio gives "surprisingly" good results. Not only has a change in size been deemed obvious to one of ordinary skill in the art, but also has the discovery of an optimum range. *In re Aller*, 105 USPQ 233. Ridgely and Shirokoshi teach the claimed limitations of the present invention, but only lack the teaching of the specific claimed gear ratios. This is not considered the inventive concept that would clearly establish the present invention as non-obvious over the prior art. Applicant's arguments have been considered, but are not persuasive.

With regard to applicant's affidavit, although this was not executed, and the "work credentials" section was left blank, the affidavit was read by the examiner. In response to this, again, both of the planetary gear systems were taught by the cited references. Applicant only claims to have an allegedly more beneficial set of gear ratios for these systems. Applicant, after

experimentation, has figured out gear ratios (that are assumed to be physically possible within these systems) that produce good results. Applicant claims this is the optimum range. However, discovering an optimum range from a previously taught invention through experimentation is obvious to one of ordinary skill in the art (see *In re Aller*, 105 USPQ 233 again). The affidavit has been read, and is also not persuasive.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing

Application/Control Number: 10/049,173

Page 6

Art Unit: 3681

and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your

Application/Control Number: 10/049,173

Page 7

Art Unit: 3681

response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 703-305-0445. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang
Patent Examiner
Art Unit 3681

November 26, 2004